REMARKS

General

In a prior Office Action (mailed 9/13/2004) the Examiner cited a paper entitled *"Visual Segmentation and the Dynamic Binding Problem, Improving the ..."* authored by *Smith* and dated (*1993*). The copy of Smith's paper as provided with the Office Action was incomplete and of poor reproductive quality. Best efforts have been made to obtain a clean copy of Smith's paper, including contacting the original author, but a perfect copy could not be obtained. However, a better quality (though still imperfect) copy than that provided by the Examiner was located and that improved quality copy is submitted herewith (10 pages of text and drawings plus cover sheet(s)).

Since this is **merely a more legible copy of art already cited** by the Examiner it is believed than no formal IDS is required to make this copy of Smith's paper part of the record. If this belief is incorrect then please treat this paper as including an IDS to Smith and charge the necessary fees to our Deposit Account (details infra) and proceed with examination.

Additionally, since the copy of Smith's paper is still incomplete, the original author, Graham D. Smith, was reached and he was kind enough to send by electronic mail comments on his (imperfect) recollections as to the content and significance of the missing parts of his paper. A copy of the correspondence from Smith (2 pages) is submitted herewith as an addendum to Smith's original paper. Note that since the addendum was written in January 2005 it cannot possibly be considered prior art *per se.*

Smith's comments and paper are submitted without prejudice in a spirit of conspicuously open disclosure; it is not admitted that Smith's paper has any relevance to the claimed invention.

Claims

Claims 6 30 were pending at last examination. Claims 6 30 have been rejected.

35 USC §103

The Office Action has rejected Claims 6-30 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,125,391 issued to Meltzer et al. (herein Meltzer) in view of U.S. Patent No. 5,604,680 issued to Bamji et al. (herein Bamji). These rejections are traversed.

It is respectfully submitted that it is improper to combine the references of Meltzer and Bamji for several reasons, at least because they are from unrelated arts (Commerce and semiconductor circuit layout), because combination would not be operable and also because neither reference is related to the field of the claimed inventions (e.g., routing). For these reasons it is respectfully requested that all rejections under *35 US §103* based in Meltzer in view of Bamji be withdrawn.

Claim 6.   As to claim 6, it is respectfully submitted that the Office Action does not show that Meltzer in view of Bamji discloses, teaches or renders obvious all the limitations of claim 6.

For example, claim 6 recites, in part, *"...at least one virtual network machine in the memory ..."* The Examiner has written *"...As per claim 6, Meltzer discloses ... at least one*

virtual network machine in the memory, said at least one first virtual network machine

including a first network interface [Meltzer, a data processor, memory and programs, col.7

lines 17-24; a computer implemented by JAVA virtual machine, a network interface, col.9

lines 9-28 col.11 line 10 to col.12 line 5]..." It is respectfully submitted that Meltzer's

"JAVA virtual machine" and Meltzer's *"network interface"* are disparate items and do not

together constitute *"virtual network machine"* and neither is one obvious over the other. It

should be noted that the term *"virtual network machine"* has a particular accepted meaning in

the network and routing arts. Even if, purely for the sake of argument, it were reasonable to

construe that *"a virtual network machine"* means merely *"a virtual machine [and] a*

network" such presumption would be overcome by the explanation of the term *"virtual*

network machine" used in the present application. See, in particular, Page 16 lines 2-8 of the

specification, reproduced here: *"A Virtual Network Machine (VNM)* **as the term is used**

herein *to describe the collection of processes and mechanisms that operate on a network*

device to implement the functions of a node in a virtual network. .... The functionality of a

virtual network machine can be that of a router, bridge or switch, depending on what is

configured in its network database." (Emphasis added). It is respectfully submitted that there

is no suggestion in Meltzer that his JAVA virtual machine fulfills any of the specific purposes

of *"a virtual network machine"*.

As a further example of how Meltzer in view of Bamji fails to disclose, teach or

renders obvious all the limitations of claim 6, it is respectfully submitted that Claim 6 recites,

in part, " *... binds the first network interface to the first sub-interface data structure..."* The

Examiner has written *"...As per claim 6, ... Bamji discloses a virtual interface method and*

design tool which provides the function binding that define the virtual interface and the sub-

interfaces [Bamji,col5 lines 15-40; col 11 lines 41-51]...". It is respectfully submitted that

Bamji's "*sub-interfaces*" apply to virtual hierarchical interfaces *[Bamji col 11 lines 41-5]* and

Bamji's "*data structure*" applies to "*a cell library for use during the design of a symbolic*

layout" *[Bamji,col5 lines 61-63]* and that these are separate and cannot be meaningfully

combined. Neither do they constitute a "*sub-interface data structure*". Moreover there is no

motivation to combine this part of Bamji with Meltzer since they address different problems

in non-analogous arts.

Thus, it is respectfully submitted that Meltzer in view of Bamji, separately or jointly, cannot

teach, disclose or render obvious all the limitations of claim 6; and therefore no *prima facie* showing

of obviousness has been made. For at least this reason recited above it is respectfully requested that

the rejection of claim 6, under 35 USC§103 be withdrawn.

<u>Claim 7.</u>   Claim 7 is dependent upon claim 6 therefore it is respectfully submitted that

claim 7 is allowable for at least the same reasons as claim 6.

Additionally, as to <u>claim 7</u>, it is respectfully submitted that the Office Action does not

disclose or teach all the **further** limitations of claim 7. For example, claim 7 recites, in part, "*...first*

network interface is a layer 3 network interface...". The Examiner has written "*...As per claim 7,*

Meltzer-Bamji disclose the first network interface is a layer 3 network interface; ...". But Meltzer is

silent as to layer and Bamji uses the term "layer" only to refer to physical layers of semi-conducting

materials (and masks etc) in integrated circuits *[Bamji col.1 line 24 and col.2 line 24]*. It is clear

from the specification that the claimed "*layer 3 network interface...*" refers not to a physical layer

of semi-conductor substance but to Layer 3 of the OSI protocol stack model (and most notably to

include IP (Internet Protocol) which is a most notorious Layer 3 protocol in the networking arts).

See for example the specification of the present application, Page 1 line 32 through page 2 line 13.

It is respectfully submitted that Bamji does not disclose teach or render obvious "Layer 3", still less "Layer 3 network interface" and that in any case the layers of Bamji cannot properly be combined with network interfaces of Meltzer. Thus, it is respectfully submitted that Meltzer in view of Bamji, separately or jointly, cannot teach, disclose or render obvious all the limitations of claim 7; and therefore no *prima facie* showing of obviousness of claim 7 has been made.

For at least both of the reasons recited above it is respectfully requested that the rejection of claim 7, under 35 USC§103 be withdrawn.

Claims 8-30. As to claims 8-30, the Office Action rejections all cited the same Meltzer-Bamji art and all have essentially the same defects as the rejections of claim 6, and sometimes claim 7. Therefore, it is respectfully submitted that no *prima facie* showing of obviousness has been made for any of claims 8-30 and it is respectfully requested that the rejections of claims 8-30. under 35 USC§103 be withdrawn.

Claims 10, 18, 23, 24 and 25. Claims 10, 18, 23, 24 and 25 each recite a limitation as to *"Network Domain"*. "Network Domain" is not disclosed, taught or rendered obvious in the cited art. For example, in regards to claim 24, the examiner has written, in part, *"As per claim 24, Meltzer-Bamji disclose ... network domains ... [Meltzer, all business domains, col. 31 lines 60-67] ... with respective subscribers to respective network interfaces for respective network domains identified from searching respective subscriber records [Meltzer, monitored by programs, col. 25 lines 4-14; col. 26 lines 40-58; a database, col 82, lines 1-7] ..."*. But Bamji is entirely silent as to *"domain"* and Meltzer discloses only *"business domains"* which Meltzer discloses to mean such things as *"companies, services, products,"* and numerous other entities of commerce (see Meltzer, for example col.11 lines 2-8).

The term *"Network Domain"* as used in the present claimed invention is entirely

different. Even if we were to suppose, purely for the sake of argument, that "*Network Domain*" could conceivable be construed to include "*business domain*", such presumption is overcome by the explanation of the term "*network domain*" used in the present application. See, in particular, Page 2 lines 27-29 of the specification, reproduced here: *"Network Domains - A network domain **as the term is used** herein refers to the set of nodes and links that are subject to the same administrative authority...."*

It is respectfully submitted that there is no suggestion in Meltzer that his "*business domains, ...companies, services, products*" etc. can in any way be properly construed to mean a " *set of nodes and links that are subject to the same administrative authority.*" and hence are separate in the arts from "*network domains*". Separate, in any context that is, let alone in the clear context of the Internet arts as applied in the claimed invention. Indeed, Meltzer is completely silent as to "*link*" and as to "*administrative authority*". Therefore, it is respectfully submitted that for these additional reasons, no *prima facie* showing of obviousness has been made for any of claims 10, 18, 23, 24 and 25 and it is respectfully requested that the rejections of claims 10, 18, 23, 24 and 25 under 35 USC§103 be withdrawn.

Moreover, claims 11-17, 19-22, and 26-28 are each dependent, directly or indirectly, upon claims 10, 18, 23, 24 or 25 therefore it is respectfully submitted that claims 11-17, 19-22, and 26-28 are allowable for at least the same reasons as claims 10, 18, 23, 24 and/or 25

Claims 24- 30. It is respectfully submitted that the Office Action fails to show how the prior art renders obvious the further limitations of claims 24 and 29. For example, claims 24-29 recite, in part, " *...said respective virtual network machines including corresponding respective network databases which include respective control information that respectively imparts router functionality to corresponding respective virtual network machines... "* In this

context, the Office action cites Meltzer, especially *[Meltzer, ... the router service filters. Col.83 col (sic-lines) 45-67 ...]*. But there is nothing in Meltzer to suggest that router functionality is imparted by network databases, still less " ... *virtual network machines including corresponding respective network databases which include respective control information...* ". Therefore, it is respectfully submitted that for these additional reasons, no *prima facie* showing of obviousness has been made for claim 29 and it is respectfully requested that the rejection of claim 29 under 35 USC§103 be withdrawn.

Moreover, since claims 25-29 and 30 are dependent upon one of claims 24 and 29, it is respectfully submitted that these claims are allowable for at least the same reasons as claims 24 and 29.

SUMMARY

Reconsideration of this application is respectfully requested. Claims 6-30 remain in the application. No Claims have been amended. No claims have been canceled. No Claims have been added.

Invitation for a telephone interview

The Examiner is invited to call the undersigned at 408-720-8300 (Pacific Time)

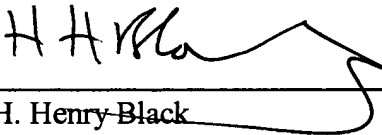if there remains any issue with allowance of this case.

Charge our Deposit Account

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Date: 7/5 , 20 05

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